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Patuxent Science Meeting 2004 Poster Abstract

Effects of Disturbance and Predation on American Oystercatchers (Haematopus palliatus) During the Breeding Season, Cumberland Island National Seashore, Georgia, 2003

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Human disturbance and predation may contribute to low reproductive success for American oystercatchers at Cumberland Island National Seashore, Georgia; however no recent studies have focused on identification of causes of egg and hatchling losses. Our objectives are: (1) to determine nest success, (2) to determine depredation rates and sources, (3) to determine disturbance frequency and duration (primarily related to activities of humans and their pets) and its effects on nesting success, and (4) to quantify a threshold of tolerance to disturbance. During our first year (2003), we accomplished our objectives by video monitoring nests and collecting time activity data on all juvenile American oystercatchers and nesting adults, and by documenting human disturbance. During the 2003 breeding season, 10 nesting oystercatcher pairs made 19 nest attempts. Four nests were successful, fledging 6 chicks. Nests failed because of predation (n = 10), overwash (n = 1), feral horse trampling (n = 1), abandonment (n = 1), unknown (n = 2). Predators included raccoon (Procyon lotor, n = 6), bobcat (Lynx rufus, n = 3), and ghost crab (Ocypode quadata, n = 1). We collected more than 300 hours of time activity data and disturbance data. In the next year, we will use multiple regression analysis to compare these data. We will compare nesting success of disturbed and undisturbed areas using the program CONTRAST.